

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A method of optimizing speech quality in a mobile radio system by using if/when-possible a tandem free operation mode for a mobile-to-mobile call, ~~in which the~~ method comprising:-
selecting a first coding mode;
if said first coding mode is not compatible with said tandem free operation mode,
changing said first coding mode to a second coding mode which is compatible with said tandem free operation mode; and
because said tandem free operation mode is impossible in the case of a coding mode that is unauthorized for that operation mode, instead of using a tandem operation mode in this case, using said tandem free operation mode is used, if possible, with an said tandem free operation mode with said second authorized coding mode, provided that said authorized coding mode is supported.

2. (Currently Amended) A method of optimizing speech quality in a mobile radio system by using when possible a tandem free operation mode for a mobile-to-mobile call, the method comprising:-
selecting a first coding mode;
if said first coding mode is not compatible with said tandem free operation mode,
changing said first coding mode to a second coding mode which is compatible with said tandem free operation mode;
signaling said first or second coding mode for each of said mobiles;

~~The method claimed in claim 1, wherein if said tandem free operation mode is established after negotiation with the aim of selecting a common coding mode for that tandem free operation mode based on said signaled coding modes for each of said mobiles;~~

~~using said tandem free operation mode with said selected common coding mode, and said negotiation was initiated on the basis of coding modes initially selected independently for each of said mobiles, and if said coding mode initially selected for at least one of said mobiles is an unauthorized coding mode, negotiation is initiated with said unauthorized coding mode for that mobile replaced by an authorized coding mode, provided that said authorized coding mode is supported.~~

a1 3. (Currently Amended) The method claimed in claim 21, wherein if said signaled coding modes ~~on the basis of which said negotiation was initiated match, they said coding modes~~ constitute said common coding mode for said tandem free operation mode.

4. (Currently Amended) The method claimed in claim 21, wherein if said signaled coding modes ~~on the basis of which said negotiation was initiated~~ do not match, selecting a common coding mode for said tandem free operation mode ~~is selected on the basis of~~ based on lists of supported coding modes ~~supported~~, for each of said mobiles,

~~wherein at least one of said lists does not include not including any unauthorized any coding mode that is not compatible with said tandem free operation mode.~~

5. (Currently Amended) The method claimed in claim 21, wherein said system is the Global System for Mobile Communication.

6. (Currently Amended) The method claimed in claim 21, wherein one ~~unauthorized coding mode that is not compatible with said tandem free operation mode~~ is an adaptive coding mode.

7. (Currently Amended) The method claimed in claim 6, wherein one said adaptive coding mode is ~~the Adaptive Multirate coding~~ R-mode.

8. (Currently Amended) The method claimed in claim 21, wherein one ~~authorized~~ coding mode that is compatible with said tandem free operation mode is ~~the~~ a full rate mode.

9. (Currently Amended) The method claimed in claim 21, wherein one ~~authorized~~ coding mode that is compatible with said tandem free operation mode is ~~the~~ an enhanced full rate mode.

al 10. (Currently Amended) The method claimed in claim 21, wherein one ~~authorized~~ coding mode that is compatible with said tandem free operation mode is ~~the~~ a half rate mode.

11. (Currently Amended) A mobile radio system for ~~implementing a method of~~ optimizing speech quality in a mobile radio system by using ~~if~~ when possible a tandem free operation mode for a mobile-to-mobile call, said system comprising:

means for initially selecting a first coding mode;

means for replacing said first coding mode if said first coding mode is not compatible with said tandem free operation mode, to a second coding mode which is compatible with said tandem free operation mode, and

in which method means for using said tandem free operation mode with said second coding mode. ~~, because said tandem free operation mode is impossible in the case of a coding mode that is unauthorized for that operation mode, instead of using a tandem operating mode in this case, said tandem free operation mode is used, if possible, with an authorized coding mode, provided that said authorized coding mode is supported, in which system a tandem free operation mode is used if possible for a mobile to mobile call, and, if said tandem free operation mode is not possible in the case of a coding mode that is unauthorized for that operation mode, it includes means for, instead of using a tandem operation mode in this case, using said tandem free~~

~~operation mode, if possible, with an authorized coding mode, provided that said authorized coding mode is supported.~~

12. (Currently Amended) A mobile radio system for optimizing speech quality in a mobile radio system by using if possible a tandem free operation mode for a mobile-to-mobile call, said system comprising: ~~The system claimed in claim 11, wherein~~

means for initially selecting a first coding mode;

means for replacing said first coding mode if said first coding mode is not compatible with said tandem free operation mode, to a second coding mode which is compatible with said tandem free operation mode, and

means for signaling said first or second coding mode for each of said mobiles;

means for selecting a common coding mode for tandem free operation based on said signaled coding modes for each of said mobiles,

means for using said tandem free operation mode with said selected common coding mode.

~~if said tandem free operation mode is established after negotiation with the aim of selecting a common coding mode for that operation mode, if said negotiation was initiated on the basis of coding modes initially selected independently for each of said mobiles, and if said coding mode initially selected for at least one of said mobiles is an unauthorized coding mode, negotiation is initiated with said unauthorized coding mode for that mobile replaced by an authorized coding mode, provided that said authorized coding mode is supported.~~

13. (Currently Amended) The system claimed in claim 12~~1~~, wherein if said initially selected coding modes- for each of said mobiles ~~on the basis of which said negotiation was initiated match,~~ said coding modes they constitute comprise said common coding mode for said tandem free operation mode.

14. (Currently Amended) The system claimed in claim 12~~1~~, further comprising:

means for selecting wherein if said coding modes on the basis of which said negotiation was initiated do not match a common coding mode for said tandem free operation mode when said initially selected coding modes for each of said mobiles do not match, is selected on the basis of wherein said selection is based on lists of supported coding modes supported, for each of said mobiles, and at least one of said lists does not not including comprise any unauthorized any coding mode that is not compatible with said tandem free operation mode.

15. (Currently Amended) The system claimed in claim 12~~1~~, wherein said system is ~~the~~ a Global System for Mobile Communication.

16. (Currently Amended) The system claimed in claim 12~~1~~, wherein one ~~unauthorized~~ coding mode that is not compatible with said tandem free operation mode is an adaptive coding mode.

17. (Currently Amended) The system claimed in claim 16, wherein one said adaptive coding mode is ~~the~~ Adaptive Multirate coding R-mode.

18. (Currently Amended) The system claimed in claim 12~~1~~, wherein one ~~authorized~~ coding mode that is compatible with said tandem free operation mode is ~~the~~ a full rate mode.

19. (Currently Amended) The system claimed in claim 12~~1~~, wherein one ~~authorized~~ coding mode that is compatible with said tandem free operation mode is ~~the~~ an enhanced full rate mode.

20. (Currently Amended) The ~~method-system~~ claimed in claim 12, wherein one ~~authorized~~ coding mode that is compatible with said tandem free operation mode is ~~the~~ a half rate mode.

21. (New) An entity for a mobile radio system, comprising:

means for selecting a first coding mode for a mobile-to-mobile call,

means for, if said first coding mode is not compatible with a tandem free operation mode, changing said first coding mode to a second coding mode which is compatible with said tandem free operation mode, means for using said tandem free operation with said second coding mode.

22. (New) An entity for a mobile radio system, comprising:

means for selecting a first coding mode for a mobile for a mobile-to-mobile call,

AI means for, if said first coding mode is not compatible with a tandem free operation mode, changing said first coding mode to a second coding mode which is compatible with said tandem free operation mode,

means for initiating a negotiation for selecting a common coding mode for said tandem free operation, with said second coding mode.

23. (New) The entity according to claim 22, further comprising:

means for implementing codec mismatch resolution, using a list of supported coding modes, which does not comprise any coding mode that is not compatible with said tandem free operation mode.
